

general design specification

power rating: .022 hp (16.4 W)

voltage: 6 to 115 VDC

weight: 9 ounces (255 grams)

armature: Dynamically balanced

inertia: 3.7×10^{-4} oz. in. sec.²

electrical time constant: 0.5 milliseconds max

mechanical time constant: 25.0 milliseconds max

typical no load torque: 0.65 oz. in.

protection: Varnish impregnated

shaft: Precision-ground, through-hardened (RC 40-50) 420 stainless steel per ASTM A582. Options: length, smaller diameter, flats, pinions, gears, holes (through or tapped), threaded ends and tapers. Type of steel used may change depending upon variation selected

magnets: Alnico V

bearings: Double-shielded, life-lubricated for -55°C to +85°C operation. Special lubricants available for temperature extremes

cables/leads: 8" shielded cable per MIL-C-7078 #22 AWG conductors per MIL-W-16878/4

cover: Aluminum

frame: Die-cast aluminum

marking: Per MIL-STD-130

life: 1,000 hours continuous duty for 27 VDC units

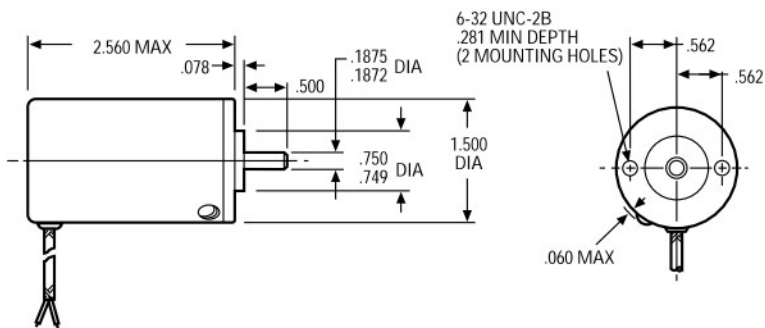
winding temperature rise: 5.5°C per watt w/8.00" x 8.00" x .25" aluminum heat sink

winding insulation rating: 130°C (higher temperature windings available)

options available:

- Gear train (see A-2430 for details)
- RFI filters to meet MIL-I-6181, MIL-I-26600 or MIL-STD-461
- Integral tachometer generators (see Bulletin A-2415)

Dimensions



A-2400

Standard Part Numbers and Data

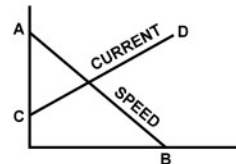
VOLTAGE (VDC)	SPEED no load (rpm)	TORQUE		CURRENT			CONSTANTS		STANDARD PART NUMBERS*
		max rated (oz. in.)	** theoretical stall (oz. in.)	max no load (amps)	max rated load (amps)	** nominal stall (amps)	K_T (oz. in./amp)	R (ohms)	
6	10,000-12,000	2.3	19.0	1.30	4.6	35.00	.67	.18	100A104-3
6	8,000-9,500	3.2	15.0	.97	4.6	22.00	.86	.29	100A104-4
12	12,500-14,500	1.8	24.0	.76	2.3	27.00	1.10	.46	100A104-5
12	10,000-12,000	2.4	19.0	.60	2.3	17.00	1.39	.74	100A104-6
12	8,000-9,500	3.2	15.0	.49	2.3	11.00	1.74	1.13	100A104-7
12	6,200-7,300	3.5	11.0	.44	2.5	7.00	2.22	1.88	100A104-8
27	11,000-13,000	2.0	22.0	.30	1.0	9.80	2.79	3.04	100A104-9
27	9,000-10,500	2.8	17.0	.24	1.0	6.40	3.47	4.82	100A104-10
27	7,000-8,500	3.6	14.0	.20	1.0	3.90	4.35	7.58	100A104-11
50	10,500-12,500	2.1	20.0	.16	.5	4.60	5.45	12.20	100A104-12
50	8,000-9,500	2.8	16.0	.13	.5	2.90	6.85	18.10	100A104-13
50	6,500-8,000	3.7	13.0	.10	.5	1.80	8.64	30.80	100A104-14
50	5,000-6,000	3.5	10.0	.08	.4	1.20	10.87	48.30	100A104-15
115	13,000-15,500	1.6	18.0	.09	.3	2.30	9.95	56.30	100A104-16
115	11,000-13,000	2.2	14.0	.07	.3	1.50	12.17	87.00	100A104-17
115	9,000-10,500	2.8	11.0	.06	.3	.95	14.87	135.00	100A104-18
115	7,000-8,500	3.6	9.0	.05	.3	.61	18.79	207.00	100A104-19
115	6,000-7,000	2.9	7.0	.04	.2	.40	22.46	332.00	100A104-20
115	4,500-5,500	2.7	6.5	.04	.2	.26	27.29	507.00	100A104-21

**Because of brush drop and field distortion, current and torque indicated will not always be attainable

*When You Order

Units shown above are standard and may be ordered by part number. Remember to include armature winding dash number. EXAMPLE: 100A104-7

How To Draw Speed Torque Curve



- A no load speed (nominal) (rpm)
- B stall torque (oz. in.)
- C no load current (amps)
- D stall current (amps)

Typical Performance

Part No.: 100A104-7

Voltage: 12 VDC

